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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,577	10/01/2001	Patrick Pirim	20046H-0007000US	8691

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San Francisco, CA 94111

EXAMINER

SHERALI, ISHRAT I

ART UNIT PAPER NUMBER

2621

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/763,577	Applicant(s) PIRIM ET AL.	
	Examiner Sherali Ishrat	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/21/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37CFR 1.83(a). The drawings must show every feature of the invention specified in claims. Drawings do not illustrates any steps of the claim 1 such as NXS elementary operations are done in parallel. No new matter should be entered.

Specification

2. The specification is objected to because of the following reasons:

The specification on page 2, lines 11-12, discloses "The histogram characteristics preferably include $R = \text{NBPTS}/\text{RMAX}$ ". However the specification fails to disclose what is R, NBPTS and RMAX . Proper correction is required.

The specification on page 2, lines 21-22, discloses "a line preferably involves selecting pixels from group consisting of luminance, hue, saturation, direction DP, CO and velocity". However the specification fails to disclose what is DP and CO.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-25 are rejected under 35 USC 112 first paragraph as failing to comply with written description requirement.

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Regarding claim 1, claim in lines 17-21, recites "NXS elementary operations are done in parallel with the selected pixels on $S = 2$ sets of $N > 3$ projection axis, the N predetermined projection axis of each set regularly distributed from the set reference axis with stepping angle of $180 / N$ ". The specification fails to disclose the detail how the NXS operations are done in parallel with N predetermined projection axis of each set regularly distributed from the set reference axis with stepping angle of $180 / N$ ". Claims 2-25 are dependent on independent claim 1, therefore they are also rejected.

Regarding claim 1, claim in lines 14-16, recites "the selected pixel being at least from the group consist of luminance, hue, saturation direction DP, CO, and velocity, CO being an updated calculated value of time constant". The specification on page 15, lines 23-26, discloses "temporal processing unit retrieves from the memory the smoothed pixel of the digital video signal from immediately prior frame and the values of smoothing time constant". However the specification fails to disclose how the time constant is determined. Claims 2-25 are dependent on independent claim 1, therefore they are also rejected.

Regarding claim 1, claim in lines 14-16, recites "the selected pixel being at least from the group consist of luminance, hue, saturation direction DP, CO, and velocity, DP identify a significant variation of pixel, CO being an updated calculated value of time constant" and in lines 17-21 claim recite

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"NXS elementary operations are done in parallel with the selected pixels on S = 2 sets of $N > 3$ projection axis, the N predetermined projection axis of each set regularly distributed from the set reference axis with stepping angle of $180/N$ ". It is not clear from the specification how elementary operation of histogram is performed on velocity, direction and time constant. In other words how histogram of velocity, direction and time constant are obtained for an image. Claims 2-25 are dependent on independent claim 1, therefore they are also rejected.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-37 are rejected under 35 USC 112 second paragraph as being indefinite.

Regarding claim 1, claim in lines 11-16, "the image is processed in order to select pixels of the image having image characteristics of a line, the selected pixel being at least from the group consist of luminance, hue, saturation, direction, DP, direction CO and velocity". This limitation is indefinite because it is not understood what is luminance pixels, hue pixels, saturation pixels, DP pixels and CO pixels and how are they selected. Luminance, hue and saturation are image pixel attribute. Luminance, hue and saturation of image pixels are obtained and histogram of luminance hue and saturation is formed. Claims 2-25 are dependent on independent claim 1, therefore they are also rejected.

Regarding claim 1, claim in lines 11-16, "the image is processed in order to select pixels of the image having image characteristics of a line, the selected pixel being at least from the group consist of luminance, hue, saturation, direction, DP, CO and Velocity, DP identify a significant variation of pixel and CO being time constant. This limitation is indefinite because it is not understood what is DP, CO and velocity pixels?. If histograms of DP, CO and velocity is formed how it is formed. Claims 2-25 are dependent on independent claim 1, therefore they are also rejected.

Regarding claim 1, lines 16-17, Regarding claim 1, claim in lines 17-21, recites "NXS elementary operations are done in parallel with the selected pixels on $S = 2$ sets of $N > 3$ projection axis. This limitation is indefinite because it is not understood what is selected pixel on $S = 2$ set and what is set. Similarly claims 2, 4-5 recite $S = 2$ sets. Claims 2-25 are dependent on independent claim 1, therefore they are also rejected.

Regarding claim 7, claim in line 2 recites "histogram characteristic comprise $R = \text{NBPTS}/\text{RMAX}$ ". This limitation is indefinite because it is not understood what is R.

Regarding claim 26, claim in lines 10-11, recites "histogram and it comprises means for executing the process of any one of claims". This limitation of means for executing the process of any one of claims is indefinite. Claims 27-32 are dependent on claim 26 therefore they are also rejected.

Regarding claim 26, claim in lines 13-14, recite "the image processing system comprising histogram formation units and rotation units for $S = 2$ sets of $N > 3$ predetermined projection axis. This limitation is indefinite because it is not understood what is $S = 2$. Claims 27-32 are dependent on claim 26 therefore they are also rejected.

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Regarding claim 33, claim in lines 13-14 recites "rotation unit for rotating $S = 2$ of $N > 3$ predetermined axis. This limitation is indefinite because it is not understood what is $S = 2$. Claims 34-37 are dependent on claim 33 therefore they are also rejected.

Regarding claim 33, claim in lines 17-18, recites "validation signal projected onto sets of predetermined projection axis". This limitation is indefinite because it is not understood how validation signal is projected onto sets of predetermined projection axis. Claims 34-37 are dependent on claim 33 therefore they are also rejected.

Allowable Subject Matter

7. Claims 1-37 would be allowable over prior of record provided that claims overcome rejection under 35 USC 112 first and second paragraphs and also objection to the specification is corrected.

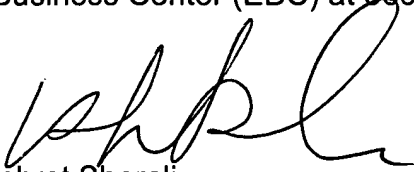
Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherali Ishrat whose telephone number is 703-308-9589. The examiner can normally be reached on 8:00 AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Au Amelia can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

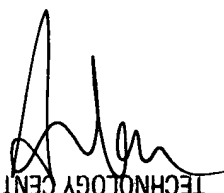


Ishrat Sherah

Patent Examiner

Group Art Unit 2621

February 1, 2005



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